

Claims

[0069] What is claimed is:

- 1 1. A multi-projector display system for displaying an image including at
2 least one window, comprising:
3 a window projector, for displaying, at a display location, a portion of the
4 image corresponding to a movable window;
5 a workspace projector, for displaying the remainder of the image; and
6 a control mechanism, coupled to the window projector, for changing at
7 least one of the display location and the size of the window por-
8 tion of the image.
- 1 2. The display system of claim 1, wherein the control mechanism changes
2 the at least one of the display location and the size of the window portion of the
3 image in response to a user command.
- 1 3. The display system of claim 1, wherein the control mechanism changes
2 the display location of the window portion of the image in response to a user
3 command for moving the window.

1 4. The display system of claim 1, wherein the control mechanism changes
2 the display location of the window portion of the image in response to activation
3 of the window.

1 5. The display system of claim 1, wherein:
2 the window projector displays the window portion of the image at a first
3 level of resolution; and
4 the workspace projector displays the remainder of the image at a second
5 level of resolution.

1 6. The display system of claim 5, wherein the first level of resolution is
2 greater than the second level of resolution.

1 7. The display system of claim 1, wherein:
2 the window projector displays the window portion of the image in a first
3 visual format; and
4 the workspace projector displays the remainder of the image in a second
5 visual format;
6 wherein the first visual format is distinct from the second visual format.

1 8. The display system of claim 7, wherein the first visual format is color
2 and the second visual format is monochrome.

1 9. The display system of claim 1, wherein the window projector displays a
2 motion picture in the window portion of the image.

1 10. The display system of claim 1, wherein the window projector and the
2 workspace projector are coupled to a common image source.

1 11. The display system of claim 1, wherein the window projector is cou-
2 pled to a first image source, and the workspace projector is coupled to a second
3 image source.

1 12. The display system of claim 1, wherein the image includes a plurality
2 of windows, one of the windows currently having focus, and wherein the win-
3 dow projector displays the portion of the image corresponding to the window
4 having focus.

1 13. The display system of claim 12, wherein, in response to a user com-
2 mand changing focus to a second one of the windows:

3 the window projector displays, at a display location for the second win-
4 dow, a portion of the image corresponding to the second win-
5 dow; and
6 the workspace projector displays the remainder of the image.

1 14. The display system of claim 1, wherein the workspace projector dis-
2 plays the remainder of the image while leaving blank an area of the image corre-
3 sponding to the display location of the window.

1 15. The display system of claim 14, wherein, the workspace projector per-
2 forms at least one of moving and resizing the blank area of the image so as to
3 correspond to the changed at least one of the display location and size of the win-
4 dow.

1 16. The display system of claim 1, wherein the control mechanism
2 changes the display location of the window portion of the image by repositioning
3 the window projector.

1 17. The display system of claim 1, further comprising a mirror for direct-
2 ing the output of the window projector to the display location, and wherein the
3 control mechanism changes the display location of the window portion of the
4 image by repositioning the mirror.

1 18. The display system of claim 1, wherein the control mechanism
2 changes the size of the window portion of the image in response to a user com-
3 mand for resizing the window.

1 19. The display system of claim 1, wherein the control mechanism com-
2 prises:
3 a pan/tilt control mechanism; and
4 a zoom control mechanism.

1 20. A multi-projector display system for displaying an image including at
2 least two windows, comprising:
3 a plurality of window projectors, each for displaying, at a display location,
4 a portion of the image corresponding to a window;
5 a workspace projector, for displaying the remainder of the image; and
6 at least one control mechanism, coupled to the window projectors, for
7 changing at least one of the display locations and the sizes of the
8 window portions of the image.

1 21. The display system of claim 20, wherein the at least one control
2 mechanism changes the at least one of the display locations and the sizes of the
3 window portions of the image in response to user commands.

1 22. A multi-projector display system for displaying an image including at
2 least one window, comprising:
3 a window projector, for displaying, at a display location, a portion of the
4 image corresponding to a window;
5 a plurality of workspace projectors, for collectively displaying the re-
6 mainder of the image; and
7 at least one control mechanism, coupled to the window projector, for
8 changing at least one of the display location and the size of the
9 window portion of the image.

1 23. The display system of claim 22, wherein the at least one control
2 mechanism changes the at least one of the display location and the size of the
3 window portion of the image in response to a user command.

1 24. The display system of claim 22, wherein the window projector dis-
2 plays the portion of the image corresponding to a window without any visible
3 seams.

1 25. A multi-projector display system for displaying an image including at
2 least one window, comprising:

3 a plurality of window projectors, each for displaying, at a display location,
4 a portion of the image corresponding to a window;
5 a plurality of workspace projectors, for collectively displaying the re-
6 mainder of the image; and
7 at least one control mechanism, coupled to the window projectors, for
8 changing at least one of the display locations and the sizes of the
9 window portions of the image.

1 26. The display system of claim 25, wherein the at least one control
2 mechanism changes the at least one of the display locations and the sizes of the
3 window portions of the image in response to user commands.

1 27. A display system for displaying an image including at least one win-
2 dow, comprising:
3 a display device, for displaying a portion of the image omitting an area
4 corresponding to a window;
5 a window projector, for projecting onto the display device, at a display lo-
6 cation corresponding to the area omitted by the display device,
7 the portion of the image corresponding to the area omitted by
8 the display device;

9 a mechanism, coupled to the window projector, for changing at least one
10 of the display location and the size of the display location of the
11 window portion of the image.

1 28. The display system of claim 27, wherein the control mechanism
2 changes the at least one of the display location and the size of the window por-
3 tion of the image in response to a user command.

1 29. A multi-projector display system for displaying an image, comprising:
2 at least one regional image source, each for providing a portion of the im-
3 age corresponding to a display region;
4 a workspace image source, for providing the remainder of the image;
5 at least one regional projector, each coupled to a regional image source,
6 each for displaying the provided portion of the image at the
7 display region;
8 a workspace projector, coupled to the workspace image source, for
9 displaying the remainder of the image; and
10 at least one control mechanism, coupled to the at least one regional projec-
11 tor, for changing the location of the at least one display region.

1 30. A multi-projector display method for displaying an image including
2 at least one window, comprising:

3 displaying, by a window projector, at a display location, a portion of the
4 image corresponding to a window;
5 displaying, by a workspace projector, the remainder of the image; and
6 changing at least one of the display location and the size of the display
7 location of the window portion of the image.

1 31. The display method of claim 30, wherein changing the at least one of
2 the display location and the size comprises changing the at least one of the dis-
3 play location and the size in response to a user command.

1 32. The display method of claim 30, wherein changing the at least one of
2 the display location and the size comprises changing the display location in re-
3 sponse to a user command for moving the window.

1 33. The display method of claim 30, wherein changing the at least one of
2 the display location and the size comprises changing the display location in re-
3 sponse to activation of the window.

1 34. The display method of claim 30, wherein:
2 displaying the window portion of the image comprises displaying the
3 window portion of the image at a first level of resolution; and

4 displaying the remainder of the image comprises displaying the remain-
5 der of the image at a second level of resolution.

1 35. The display method of claim 34, wherein the first level of resolution is
2 greater than the second level of resolution.

1 36. The display method of claim 30, wherein:
2 displaying the window portion of the image comprises displaying the
3 window portion of the image in a first visual format; and
4 displaying the remainder of the image comprises displaying the remain-
5 der of the image in a second visual format;
6 wherein the first visual format is distinct from the second visual format.

1 37. The display method of claim 36, wherein the first visual format is
2 color and the second visual format is monochrome.

1 38. The display method of claim 30, wherein displaying a portion of the
2 image corresponding to a movable window comprises displaying a motion pic-
3 ture in the window portion of the image.

1 39. The display method of claim 30, wherein the image includes a plural-
2 ity of windows, one of the windows currently having focus, and wherein dis-

3 playing a portion of the image corresponding to a window comprises displaying
4 the portion of the image corresponding to the window having focus.

1 40. The display method of claim 39, further comprising, in response to a
2 user command changing focus to a second one of the windows:

3 displaying, by the window projector, at a display location for the second
4 window, a portion of the image corresponding to the second
5 window; and

6 displaying, by the workspace projector, the remainder of the image.

1 41. The display method of claim 30, wherein displaying the remainder of
2 the image comprises leaving blank an area of the image corresponding to the
3 display location of the window.

1 42. The display method of claim 41, further comprising, in response to the
2 user command for moving the window, moving the blank area of the image so as
3 to correspond to the changed display location of the window.

1 43. The display method of claim 30, wherein changing the display loca-
2 tion of the window portion of the image comprises repositioning the window
3 projector.

1 44. The display method of claim 30, wherein changing the display loca-
2 tion of the window portion of the image comprises repositioning a mirror.

1 45. The display method of claim 30, further comprising changing the size
2 of the window portion of the image in response to a user command for resizing
3 the window.